

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated November 13, 2003 and the phone conversation with the Examiner on February 10, 2004. In view of the above amendments and the following remarks, the Examiner is respectfully requested to take a phone interview, to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1, 4-7 and 9-11 are under consideration in this application. Claims 2 and 8 are being cancelled without prejudice or disclaimer. Claims 1 and 7 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicants' invention.

Additional Amendments

The specification and the claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejections

The specification and the claims were objected to for containing new matter and for not being enabling. In particular, the new matter includes (1) "col. 10, line 41 to col. 12 in the relevant patent" in the specification; and (2) "having exclusively freely mobile sample biopolymers therein" in claim 1. Claims 1-11 were rejected under 35 U.S.C. § 112, first paragraph, for (1) claiming a "sheet" of any dimension being too general, (2) for the specification not enabling for a skilled person in the art to make or use the invention, and (3) for the specification not describing a reproducible procedure on page 10, Paragraph No. 9. In addition, claims 1, 2 and 4-11 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Regarding the allegation that a "sheet" of any dimension being too general, Applicants contend the recitation of "dimensions of the sheet correspond to dimensions of the substrate such that the sheet is adhered to (p. 5, line 3) or peeled off from (p.5, line 9) the substrate as needed"

specifically defines the sheet and sufficiently enables one skilled in the art to determine the dimensions of the sheet. Applicants re-emphasize that U.S. Pat. No. 5,414,075 Swan et al. (hereinafter "Swan") merely teaches immobilizing target molecules on a rubber-like support for pre-hybridization preparation (Example 12; col. 19, lines 1-55). As in the prior art, a sample solution then being spot onto the rubber-like support. During the process, no plastic sheet is applied over the support to seal (p. 5, line 4) the sample solution from evaporation as the invention.

Regarding the § 112 rejection against the specification for not being enabling for one skilled in the art to make or use the invention and the new matter rejection to the specification regarding the cited specific portion of the U.S. patent, Applicants have eliminated the portion at issue and only incorporated the whole patent by reference. However, as indicated in the currently filed Declaration under 37 C.F.R. §1.132, after reading the U.S. patent, it would be apparent to one skilled in the art that the portion on col. 10, line 41 to col. 12 of the US patent is especially relevant to making a thin film containing a photocatalyst semiconductor material is formed over the entire surface of the silicone rubber sheet 2 while the photocatalyst semiconductor material is selected from a group consisting of TiO₂, ZnO, SnO₂, SrTiO₃, WO₃, Bi₂O₃ and Fe₂O₃. As such, the invention is fully enabled by the specification and no new matter was introduced via the amendment to the specification.

Regarding the new matter rejection to the claim recitation "having exclusively freely mobile sample biopolymers therein," Applicant contend that the recitation is obvious to one skilled in the art and fully supported by the Declaration under 37 C.F.R. §1.132. As such, no new matter was introduced via the claim recitation.

Regarding the § 112 rejection against claims 1, 2 and 4-11 as being indefinite, claim 2 is being incorporated into claim 1 and claim 8 is being incorporated into claim 7, and claims 1 and 7 are being amended to recite "the hollowed region faces the probe-biopolymer-fixed region when the sheet and the probe-biopolymer-fixed substrate are arranged in layers" to overcome the § 112 rejection.

Regarding the § 112 rejection against the specification for not describing a reproducible procedure on page 10, paragraph No. 9, claims 1 and 7 as amended have clarified that the sheet 12 is applied to cover a substrate 15 in layers that the hollowed region faces towards the probe-biopolymer-fixed region ("*The slide glass [substrate] is carefully placed down with the fixed DNAs facing down*" p. 4, lines 11-12; "*sheets 12 are placed on the apparatus 11, and then substrates 13 are placed on the sheets 12*" p. 5, lines 1-2; Fig. 2) such that the sample biopolymer in the sample solution held in the hydrophilic surface region of the sheet can hybridize with the

probe biopolymers in a solution spotted thus fixed to the hydrophilic slide glass substrate (p. 3, last line to p. 4, line 4). Since the slide glass substrate is hydrophilic, the probe biopolymers in a solution can be carried by the substrate against gravity. Such a reproducible procure allows the sample biopolymers in the sample biopolymer solution hybridize with the probe biopolymers fixed on the substrate, as indicated in the Declaration under 37 C.F.R. §1.132.

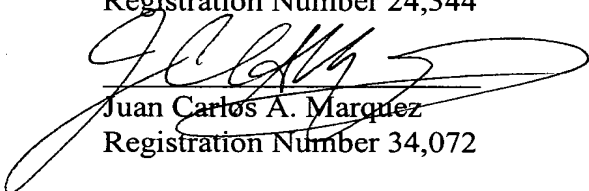
Accordingly, the withdrawal of the outstanding formal objections is in order, and is therefore respectfully solicited.

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicant respectfully contends that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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